CLAIMS

- The use of a superoxide dismutase and glutathione reductase mimetic as an antitumor and leukocyte protecting active ingredient, for obtaining an anticancer medicinal product.
 - 2. The use as claimed in claim 1, characterized in that said mimetic is mangafodipir.

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3. The use as claimed in either one of claims 1 and 2, characterized in that said mimetic is used in combination with an antitumor agent capable of inducing a reactive oxygen species production in cells.

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- 4. The use as claimed in claim 3, characterized in that said antitumor agent is chosen from doxorubicin, mitomycin C, etoposide, platinum derivatives, tamoxifen, taxol, 5-fluorouracil, irinotecan, gemcitabine, endoxan, streptozotocin, bleomycin and vincristine.
- A pharmaceutical composition comprising a superoxide dismutase and glutathione reductase
 mimemtic, combined with an antitumor agent chosen from oxaliplatin, 5-fluorouracil and taxol.
 - 6. The pharmaceutical composition as claimed in claim
 - 5, characterized in that said mimetic is mangafodipir.